

To illustrate the changes made to claim 15, the applicants are showing deletions in brackets and insertions in underline as follows:

15. (Amended) The apparatus as set forth in claim [16] 13 wherein the radiation source includes:

a particle accelerator which accelerates electrons; and

5 a scan horn which fans the electrons into an electron beam directed into the irradiation chamber.

Please add new claims ~~21-24~~ as follows:

21. [(New)] An apparatus for irradiating fluoropolymer materials, the apparatus comprising:

A3 5 a means for removing oxygen and oxygen-containing gases from an irradiation zone to create an oxygen and oxygen-containing gas depleted environment;

a means for applying at least one of electric and magnetic fields across the irradiation zone;

a means for pulsing accelerated electrons through the irradiation zone.

22. [(New)] An apparatus for irradiating fluoropolymer material, the apparatus comprising:

an irradiation zone which receives fluoropolymer material;

5 an electron accelerator for generating and sending a beam of accelerated electrons through the irradiation zone breaking chemical bonds of the fluoropolymer material and electrically charging the fluoropolymer material;

10 a means disposed adjacent the irradiation zone for applying at least one of electromagnetic and electrostatic fields which cause the charged fluoropolymer material in the irradiation zone to rotate.

23. <sup>(New)</sup> An apparatus for irradiating fluoropolymer material, the apparatus comprising:

a means for entraining pieces of fluoropolymer in gas depleted of oxygen and oxygen-containing gases;

5 a means for passing the entrained fluoropolymer material through an irradiation zone;

an electron source which irradiates the irradiation zone with accelerated electrons;

10 a means for separating irradiated fluoropolymer pieces from the gas;

a gas recirculation loop which recirculates the gas to the entraining means.

24. <sup>(New)</sup> An apparatus for irradiating fluoropolymer material, the apparatus comprising:

an irradiation chamber through which polymer material to be irradiated is passed;

5 a source of gas which is depleted in oxygen and oxygen-containing gases, the gas source being connected with the irradiation chamber to create and maintain an oxygen and oxygen-containing gas depleted environment in the irradiation chamber;

10 an electron accelerator which intermittently sends pulses of accelerated electrons through the irradiation chamber providing alternate irradiation and cooling periods for the fluoropolymer; and,

15 an electric circuit which applies at least one of electromagnetic and electrostatic fields across the irradiation chamber.

#### REMARKS

This amendment is to place the application in better condition for examination and an early allowance.

The applicants are enclosing a form PTO-1449 listing the references of record in the parent application. It is understood that copies of these references appear in the parent application and are